

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Spring 2017 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)				

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2017 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

Waterway			Bank	Unit Miles
Unit No. 01 Tisdale Bypass			Left	4.51
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/7/2017 - 4/7/2017			
DWR Inspector	Bob Duffey			
Accompanied By	Steve Beckley Sutter Maintenance Yard			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start		Rating **	A	Issue No.	2
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_ST0009_01_s_2013_2				
Comment Code					
Inspector Comment					
Sutter Yard has the O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_ST0009_01_s_2013_4				
Comment Code					
Inspector Comment					
Sutter Yard has a stockpile of emergency supplies and equipment.					

No Photos

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_ST0009_01_s_2013_5				
Comment Code					
Inspector Comment					
Sutter Yard had flood fight training October 2016.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	0.03	Rating **	M	Issue No.	10
LM End	0.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.027253 °	39.027253 °
				-121.821330 °	-121.821330 °
DWR ID	DWR_ST0009_01_f_2016_10				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2017_ST0009_286_10_20170315_00002.jpg



View of grass taller than 12 inches blocking visibility.

LM Start	0.21	Rating **	M	Issue No.	15
LM End	0.21	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.028143 °	39.028143 °
				-121.818090 °	-121.818090 °
DWR ID	DWR_ST0009_01_s_2017_15				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_286_15_20170410_00017.jpg



View of the tree along the waterside slope and toe.

LM Start	1.28	Rating **	M	Issue No.	16
LM End	1.28	Issue Type +	En	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.028265 °	39.028265 °
				-121.798370 °	-121.798370 °
DWR ID	DWR_ST0009_01_s_2017_16				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_286_16_20170410_00019.jpg



View of the tree along the waterside slope and toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Sutter Maintenance Yard Tisdale Bypass

View of the rodent holes along the landside slope.

Slide gates on WS shoulder.

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	2.14	Rating **	A/W	Issue No.	25 (cont)
LM End	2.14	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			39.028132 °	39.028132 °
				-121.782389 °	-121.782389 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51484 DS_ID:16591 EP_NO: 10099 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: 4/10/2017 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)10/11/2016 Crossing appears to be in good condition.(DWR Sutter Yard - afreitag)4/18/2016 Crossing appears to be in good condition. No noticeable issues to report.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.5/20/2013 Same as last inspection. FIELD_STRUCT_DESC: 1 of 2: 48-inch by 84-inch (4-foot by 7-foot) reinforced concrete discharge tunnel through the levee, 38 feet below the crown. Slide gate in 4-foot by 15-foot concrete well on the waterside (WS) slope. Pump house located on the landside (LS) toe and wooden flap gates on the WS toe. (Automatic Board Order (ABO) issued as Permit No. 10099, 1955 - Reclamation District No. 1660). [Additional Reference(s): DWR Levee Log, 1993. USACE Sacramento O&M Manual 133, August 1955 (Station 1044+60)]. FS Date: 4/12/2017 9:20:05 AM					

Photo 2 of 3 : UCIP_SP_2017_51484_64225.jpg



Wooden Flap gates on WS toe.

LM Start	2.14	Rating **	A/W	Issue No.	25 (cont)
LM End	2.14	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : UCIP_SP_2017_51484_64224.jpg



Pump house on LS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	2.14	Rating **	A/W	Issue No.	26
LM End	2.14	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			39.028124 °	39.028124 °
				-121.782344 °	-121.782344 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51485
DS_ID:16856
EP_NO: 10099
Repair Type: No Action Needed
Crossing Status: Found
UCIP Comments: 4/10/2017 Crossing appears to be in good condition.
(DWR Sutter Yard- AFreitag)10/11/2016 Crossing appears to be in good condition.
(DWR Sutter Yard - afreitag)4/18/2016 Crossing appears to be in good condition. No noticeable issues to report.
5/7/2015 Crossing is in good condition. No noticeable issues to report.
11/13/2014 Same as last inspection.
5/12/2014 Same as last inspection.
10/30/2013 Same as last inspection.
5/20/2013 Same as last inspection.
FIELD_STRUCT_DESC: 2 of 2: 48-inch by 84-inch (4-foot by 7-foot) concrete discharge tunnel through the levee, 38 feet below the crown. Slide gate in 4-foot by 15-foot concrete well on the waterside (WS) slope. Pump house located on the landside (LS) toe and wooden flap gates on the WS toe. (Automatic Board Order (ABO) issued as Permit No. 10099, 1955 - Reclamation District No. 1660). [Additional Reference(s): DWR Levee Log, 1993. USACE Sacramento O&M Manual 133, August 1955 (Station 1044+60)].
FS Date: 4/12/2017 9:20:37 AM

LM Start	2.14	Rating **	A/W	Issue No.	26 (cont)
LM End	2.14	Issue Type +	Ma	Location *	LS

Photo 1 of 3 : UCIP_SP_2017_51485_64230.jpg



Slide gates on WS shoulder.

Photo 2 of 3 : UCIP_SP_2017_51485_64229.jpg



Wooden flap gates on WS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	2.14	Rating **	A/W	Issue No.	26 (cont)	
LM End	2.14	Issue Type +	Ma	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			39.028124	°	39.028124
				-121.782344	°	-121.782344
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51485 DS_ID:16856 EP_NO: 10099 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: 4/10/2017 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)10/11/2016 Crossing appears to be in good condition.(DWR Sutter Yard - afreitag)4/18/2016 Crossing appears to be in good condition. No noticeable issues to report.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.5/20/2013 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2: 48-inch by 84-inch (4-foot by 7-foot) concrete discharge tunnel through the levee, 38 feet below the crown. Slide gate in 4-foot by 15-foot concrete well on the waterside (WS) slope. Pumphouse located on the landside (LS) toe and wooden flap gates on the WS toe. (Automatic Board Order (ABO) issued as Permit No. 10099, 1955 - Reclamation District No. 1660). [Additional Reference(s): DWR Levee Log, 1993. USACE Sacramento O&M Manual 133, August 1955 (Station 1044+60)]. FS Date: 4/12/2017 9:20:37 AM						

Photo 3 of 3 : UCIP_SP_2017_51485_64228.jpg



Pump house on LS toe.

LM Start	2.16	Rating **	U	Issue No.	12
LM End	2.16	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.028137 °	39.028137 °
				-121.782020 °	-121.782020 °
DWR ID	DWR_ST0009_01_f_2016_12				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 2 : SP_2017_ST0009_286_12_20170315_00004.jpg



View of a rodent hole along the levee crown.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Sutter Maintenance Yard Tisdale Bypass

Another view of the rodent holes along the crown and landside slope.

View of the PG&E poles along the landside crown of the levee.

View of the debris along the waterside slope and toe.

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	2.62	Rating **	M	Issue No.	18
LM End	2.62	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.028080 °	39.028080 °
				-121.773442 °	-121.773442 °
DWR ID	DWR_ST0009_01_s_2017_18				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_286_18_20170410_00023.jpg



View of the tree along the waterside slope and toe.

LM Start	2.62	Rating **	M	Issue No.	19
LM End	2.62	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.028080 °	39.028080 °
				-121.773442 °	-121.773442 °
DWR ID	DWR_ST0009_01_s_2017_19				
Comment Code					
DE : Debris					
Inspector Comment					
Remove the debris from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_286_19_20170410_00021.jpg



View of the debris along the waterside slope and toe.

LM Start	2.82	Rating **	M	Issue No.	20
LM End	2.82	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.028047 °	39.028047 °
				-121.769760 °	-121.769760 °
DWR ID	DWR_ST0009_01_s_2017_20				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	2.92	Rating **	M	Issue No.	21
LM End	2.92	Issue Type +	En	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.028018 °	39.028018 °	
			-121.767768 °	-121.767768 °	
DWR ID	DWR_ST0009_01_s _ 2017_21				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	3.60	Rating **	M	Issue No.	22
LM End	3.60	Issue Type +	En	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.027920 °	39.027920 °	
			-121.755190 °	-121.755190 °	
DWR ID	DWR_ST0009_01_s _ 2017_22				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Sutter Maintenance Yard Tisdale Bypass

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	4.02	Rating **	M	Issue No.	23
LM End	4.02	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.027877 °	39.027877 °
				-121.747337 °	-121.747337 °
DWR ID	DWR_ST0009_01_s_2017_23				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	4.35	Rating **	M	Issue No.	24
LM End	4.35	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.030637 °	39.030637 °
				-121.743023 °	-121.743023 °
DWR ID	DWR_ST0009_01_s_2017_24				
Comment Code					
DE : Debris					
Inspector Comment					
Remove the debris from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_286_24_20170410_00024.jpg



View of the debris along the waterside slope and toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Sutter Maintenance Yard Tisdale Bypass

Carsonite sign on LS slope.

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Sutter Maintenance Yard Tisdale Bypass

Photo 3 of 3 : UCIP_SP_2017_51487_76942.jpg



Close up of LS marker

* Location	** Rating	+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable AWW : Acceptable but Monitor & Maintain	En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	4.50	Rating **	M	Issue No.	29
LM End	4.50	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.032801 °	39.032801 °
				-121.743360 °	-121.743360 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51488
DS_ID:16589
EP_NO: 14455
Repair Type: Non-Urgent
Crossing Status: Indicator Found
UCIP Comments: 4/10/2017 LS marker still broken and there is no marker on the WS. (DWR Sutter Yard- AFreitag)10/11/2016 Carsonite marker on the LS is still broken.(DWR Sutter Yard - afreitag)4/18/2016 Carsonite marker on LS slope is broken off.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.5/20/2013 Same as last inspection.
FIELD_STRUCT_DESC: 2 of 2: 4.5-inch steel natural gas pipeline through the levee, 2 feet below the crown. Line goes across the Sutter Bypass and through both levees. Carsonite sign located on the landside (LS) slope. (Permit No. 14455, 1986 - Depco Inc.) [Additional Reference(s): DWR Levee Log, 1993]
FS Date: 4/12/2017 9:24:35 AM

LM Start	4.50	Rating **	M	Issue No.	29 (cont)
LM End	4.50	Issue Type +	En	Location *	WS

Photo 1 of 3 : UCIP_SP_2017_51488_64233.jpg



Carsonite sign on LS slope.

Photo 2 of 3 : UCIP_SP_2017_51488_64232.jpg



Carsonite sign on LS slope.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.51	04/07/2017 04/07/2017	Bob Duffey

LM Start	4.50	Rating **	M	Issue No.	29 (cont)
LM End	4.50	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.032801 °	39.032801 °
				-121.743360 °	-121.743360 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51488 DS_ID:16589 EP_NO: 14455 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 4/10/2017 LS marker still broken and there is no marker on the WS. (DWR Sutter Yard- AFreitag)10/11/2016 Carsonite marker on the LS is still broken.(DWR Sutter Yard - afreitag)4/18/2016 Carsonite marker on LS slope is broken off.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.5/20/2013 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2: 4.5-inch steel natural gas pipeline through the levee, 2 feet below the crown. Line goes across the Sutter Bypass and through both levees. Carsonite sign located on the landside (LS) slope. (Permit No. 14455, 1986 - Depco Inc.) [Additional Reference(s): DWR Levee Log, 1993] FS Date: 4/12/2017 9:24:35 AM					

Photo 3 of 3 : UCIP_SP_2017_51488_76943.jpg



Close up of LS marker

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2017 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

Waterway			Bank	Unit Miles
Unit No. 02 Tisdale Bypass			Right	4.43
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/7/2017 - 4/7/2017			
DWR Inspector	Bob Duffey			
Accompanied By	Steve Beckley Sutter Maintenance Yard			

Summer & Winter Inspections

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DWR must be informed on the:

- a) completion of the inspection
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If additional items are noted, further documentation of those items must also be submitted.

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<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	0.11	Rating **	M	Issue No.	1
LM End	0.26	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.023760 °	39.024559 °
				-121.818875 °	-121.816344 °
DWR ID	DWR_ST0009_02_s_2012_1				
Comment Code					
DT : Ditch					
Inspector Comment					
Monitor the ditch for erosion.					

Photo 1 of 1 : SP_2017_ST0009_287_1_20170315_00001.jpg



View of the agricultural ditch along the landside toe.

LM Start	0.13	Rating **	M	Issue No.	7
LM End	0.13	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.023973 °	39.023973 °
				-121.818467 °	-121.818467 °
DWR ID	DWR_ST0009_02_s_2017_7				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the landside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_287_7_20170410_00014.jpg



View of the tree along landside slope and toe.

LM Start	0.45	Rating **	M	Issue No.	8
LM End	0.45	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.025635 °	39.025635 °
				-121.812975 °	-121.812975 °
DWR ID	DWR_ST0009_02_s_2017_8				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_287_8_20170410_00015.jpg



View of the tree along the waterside slope and toe.

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	0.69	Rating **	M	Issue No.	9
LM End	0.71	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025602 °	39.025657 °
				-121.808527 °	-121.808027 °
DWR ID	DWR_ST0009_02_s_2017_9				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Repair the erosion along the landside toe.					

Photo 1 of 1 : SP_2017_ST0009_287_9_20170410_00016.jpg



View of the erosion along the landside toe from the County Road.

LM Start	0.97	Rating **	M	Issue No.	10
LM End	0.98	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025540 °	39.025572 °
				-121.803272 °	-121.802990 °
DWR ID	DWR_ST0009_02_s_2017_10				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Repair the erosion along the landside toe.					

Photo 1 of 1 : SP_2017_ST0009_287_10_20170410_00017.jpg



View of the erosion along the landside toe from the County Road.

* Location
LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

** Rating
A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type
Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	1.14	Rating **	U	Issue No.	291
LM End	1.14	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.025503 °	39.025503 °
				-121.800053 °	-121.800053 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51489
DS_ID:16594
EP_NO: 267
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 4/10/2017 Erosion appears to be getting worse at the WS vault. It is starting to erode away the WS toe road. (DWR Sutter Yard- A Freitag) 10/11/2016 Erosion still present behind the WS vault. (DWR Sutter Yard - a Freitag) 4/18/2016 Erosion happening around the WS concrete vault. 5/7/2015 Burrowing near WS toe still present. 11/13/2014 Same as last inspection. 5/12/2014 Same as last inspection. 10/30/2013 Same as last inspection. 5/20/2013 Same as last inspection. 10/17/2012 Burrowing along downstream side of concrete vault on WS Toe. May need to be grouted.
FIELD_STRUCT_DESC: 54-inch reinforced concrete irrigation pipe through the levee, 29.5 feet below the crown. Slide gates on both waterside (WS) and landside (LS) ends. WS end gate in 5-foot by 6-foot concrete box. LS end gate in concrete "U" headwall. Siphon pipe under and across bypass, steel concrete encased. (Permit No. 267 & 290 - Sutter Basin Water Co.) [Additional Reference(s): DWR Levee Log, 1993. USACE Sacramento O&M Manual 129, August 1955 (Station 61+25)].
FS Date: 4/12/2017 9:26:22 AM

LM Start	1.14	Rating **	U	Issue No.	291 (cont)
LM End	1.14	Issue Type +	En	Location *	LS

Photo 1 of 3 : UCIP_SP_2017_51489_64675.jpg



Slide gate at concrete outlet on LS toe.

Photo 2 of 3 : UCIP_SP_2017_51489_64674.jpg



Slide gate at concrete outlet on LS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	1.14	Rating **	U	Issue No.	291 (cont)	
LM End	1.14	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			39.025503 °		39.025503 °
				-121.800053 °		-121.800053 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51489 DS_ID:16594 EP_NO: 267 Repair Type: Urgent Crossing Status: Found UCIP Comments: 4/10/2017 Erosion appears to be getting worse at the WS vault. It is starting to erode away the WS toe road. (DWR Sutter Yard- A Freitag)10/11/2016 Erosion still present behind the WS vault.(DWR Sutter Yard - a Freitag)4/18/2016 Erosion happening around the WS concrete vault.5/7/2015 Burrowing near WS toe stil present.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.5/20/2013 Same as last inspection.10/17/2012 Burrowing along downstream side of concrete vault on WS Toe. May need to be grouted. FIELD_STRUCT_DESC: 54-inch reinforced concrete irrigation pipe through the levee, 29.5 feet below the crown. Slide gates on both waterside (WS) and landside (LS) ends. WS end gate in 5-foot by 6-foot concrete box. LS end gate in concrete "U" headwall. Siphon pipe under and across bypass, steel concrete encased. (Permit No. 267 & 290 - Sutter Basin Water Co.) [Additional Reference(s): DWR Levee Log, 1993. USACE Sacramento O&M Manual 129, August 1955 (Station 61+25)]. FS Date: 4/12/2017 9:26:22 AM						

Photo 3 of 3 : UCIP_SP_2017_51489_64673.jpg



Concrete box, vent, and 54-inch steel pipe in WS toe.

LM Start	1.14	Rating **	M	Issue No.	13
LM End	1.14	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025460 °	39.025460 °
				-121.800022 °	-121.800022 °
DWR ID	DWR_ST0009_02_f_2016_13				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Erosion around the WS concrete vault.					

Photo 1 of 2 : SP_2017_ST0009_287_13_20170315_00005.jpg



View of the erosion along the concrete vault.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	1.14	Rating **	M	Issue No.	13 (cont)	
LM End	1.14	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			39.025460 °		39.025460 °
				-121.800022 °		-121.800022 °
DWR ID	DWR_ST0009_02_f_2016_13					
Comment Code						
E2 : Schedule repair of erosion site prior to the next inspection.						
Inspector Comment						
Erosion around the WS concrete vault.						

Photo 2 of 2 : SP_2017_ST0009_287_13_20170315_00006.jpg



Another view of the erosion along the concrete vault.

LM Start	1.19	Rating **	M	Issue No.	290
LM End	1.19	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025490 °	39.025490 °
				-121.799240 °	-121.799240 °
DWR ID	DWR_ST0009_02_s_2015_290				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Sutter Yard needs to monitor the erosion along the berm.					

Photo 1 of 1 : SP_2017_ST0009_287_290_20170315_00007.jpg



View of the erosion along the waterside berm.

LM Start	1.29	Rating **	M	Issue No.	4
LM End	1.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025478 °	39.025478 °
				-121.797232 °	-121.797232 °
DWR ID	DWR_ST0009_02_s_2013_4				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Sutter Yard needs to monitor the erosion.					

Photo 1 of 1 : SP_2017_ST0009_287_4_20170315_00003.jpg



View of the erosion along the waterside berm.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	1.48	Rating **	M	Issue No.	5
LM End	1.50	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025460 °	39.025446 °
				-121.793815 °	-121.793347 °
DWR ID	DWR_ST0009_02_s _ 2013_5				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Sutter Yard needs to monitor the erosion.					

Photo 1 of 1 : SP_2017_ST0009_287_5_20170315_00004.jpg



View of the erosion along the waterside berm.

LM Start	2.80	Rating **	M	Issue No.	11
LM End	2.80	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.025273 °	39.025273 °
				-121.769215 °	-121.769215 °
DWR ID	DWR_ST0009_02_s _ 2017_11				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	3.30	Rating **	M	Issue No.	12
LM End	3.30	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.025220 °	39.025220 °
				-121.760017 °	-121.760017 °
DWR ID	DWR_ST0009_02_s _ 2017_12				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the tree from the waterside slope and toe.					

Photo 1 of 1 : SP_2017_ST0009_287_12_20170410_00018.jpg



View of the tree along the waterside slope and toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	3.75	Rating **	M	Issue No.	14
LM End	3.75	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.025110 °	39.025110 °
				-121.751513 °	-121.751513 °
DWR ID	DWR_ST0009_02_s_2017_14				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	3.93	Rating **	M	Issue No.	2
LM End	3.93	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.025060 °	39.025060 °
				-121.748178 °	-121.748178 °
DWR ID	DWR_ST0009_02_f_2016_2				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 1 : SP_2017_ST0009_287_2_20170315_00002.jpg



View of the erosion along the waterside berm.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	4.20	Rating **	M	Issue No.	292
LM End	4.20	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.024079 °	39.024079 °
				-121.743420 °	-121.743420 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51491 DS_ID:23099 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 4/10/2017 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)10/11/2016 Crossing appears to be in good condition but there is no permit on file. Photos of the markers were uploaded on 5/20/2013.(DWR Sutter Yard - afreitag)5/3/2016 Need photos of markers on both WS and LS. 4/18/2016 Crossing appears to be in good condition. No noticeable issues to report.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.10/17/2012 Need to identify permit for crossing. FIELD_STRUCT_DESC: Unknown size natural gas pipeline through the levee at an unknown depth below the crown. Markers visible on the landside (LS) shoulder and toe and waterside (WS) shoulder and toe. No permit has been identified since crossing was field discovered in 2012. FS Date: 4/12/2017 9:30:05 AM					

LM Start	4.20	Rating **	M	Issue No.	292 (cont)
LM End	4.20	Issue Type +	En	Location *	WS

Photo 1 of 3 : UCIP_SP_2017_51491_64681.jpg



Marker on LS shoulder and toe

Photo 2 of 3 : UCIP_SP_2017_51491_64680.jpg



Marker on WS shoulder

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2017

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	04/07/2017 04/07/2017	Bob Duffey

LM Start	4.20	Rating **	M	Issue No.	292 (cont)
LM End	4.20	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.024079 °	39.024079 °
				-121.743420 °	-121.743420 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51491 DS_ID:23099 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 4/10/2017 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)10/11/2016 Crossing appears to be in good condition but there is no permit on file. Photos of the markers were uploaded on 5/20/2013.(DWR Sutter Yard - afreitag)5/3/2016 Need photos of markers on both WS and LS. 4/18/2016 Crossing appears to be in good condition. No noticeable issues to report.5/7/2015 Crossing is in good condition. No noticeable issues to report.11/13/2014 Same as last inspection.5/12/2014 Same as last inspection.10/30/2013 Same as last inspection.10/17/2012 Need to identify permit for crossing. FIELD_STRUCT_DESC: Unknown size natural gas pipeline through the levee at an unknown depth below the crown. Markers visible on the landside (LS) shoulder and toe and waterside (WS) shoulder and toe. No permit has been identified since crossing was field discovered in 2012. FS Date: 4/12/2017 9:30:05 AM					

Photo 3 of 3 : UCIP_SP_2017_51491_64679.jpg



Marker on WS toe

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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